INDEX TO VOLUME XIII.

*Denotes new species, genus or variety.

GENERAL SUBJECTS.

Academy of Natural Sciences, Phila., Entom. Section, 26, 62, 96, 168, 232, 332.
Adirondacks, Insects of 247
American Entom. Society 62, 128, 196, 230, 331.
library of 17
Blackberry crown borer in New Mexico 100
Brooklyn Entom. Society . . . 28
California Entom. Club 31, 199, 265, 333.
California faunal areas 32, 173, 199
Chicago Entom. Society 124, 167, 198, 234, 297, 329.
Collecting done in 1902, 222, 264, 291
Courses in Entomology . . 136, 160
Economic Entomology 122, 193, 223
Edible insects 196
Editorials 17, 54, 88, 116, 157, 189, 215, 259, 292, 322.
Entomological Literature 18, 55, 91, 118, 122, 158, 161, 190, 214, 216, 260, 294, 323.
Feldman Collecting Social 24, 61, 94, 127, 167, 198, 231, 265, 266, 298, 328.
Flour moth in Indiana 159
Greenhouse Coccidæ 152
Harris Club 27, 28, 61, 125, 197, 233, 330, 331.
Insect enemies 277
Labels 189
Larva vice nymph 253
Letters of Thomas Say . . . 9, 38
Letters to the Editor . 16, 116, 121
Lime-sulphur-salt wash as an insecticide 223
Lost knowledge 98, 243
Mimetic forms 124, 332
Mt. Washington, Alpine Insects of 4, 319
Myrmecophiles 25, 41, 184
New Mexico, Collecting-routes in 59
New York Entom. Society . . 159
Nomenclature 88, 96
Obituary :
Bassett, H. F. 203
Cresson, C. C. 64
de Nicéville, L. 63
Dietz, O. 64
Doherty, W. 63
Kriechbaumer, J. 266
Strecker, F. H. H. . . . 1
Weith, R. J. 298
Obituary of an entomologist (poem) 297, 326
Pacific Coast Ent. Soc. 334
Pacific Northwest Economic Entomologists 159
Pests and grease 50, 244
Photographs of entomologists in album of Am. Ent Soc. . . 45
Poems 263, 297
Poisoning specimens 59
Prize for collection 160
Protective coloring 124
Red bug, To Allay irritation of 332
Say, Thomas, Collection of . . 11
Letters of 9, 38
Schools, Collections of insects for 293
Secondary sexual characters . 27
State Entomologists 121
Station für Pflanzenschutz, Hamburg 122
Statistical methods in classification 128
Termitophiles 187
Tibet, Getting into 117
Venation, Method for studying 276

Vernacular names of insects, Compound 281
Western Pennsylvania, Entom. Society of 126, 329
When Dyar's list comes out (poem) 263

ARACHNIDA.

Daddy-long-legs from Maine . . 308

COLEOPTERA.

Acanthocinus 235
Acmæodera mariposa 202
Adirondacks, C. of 249
Adranes lecontei 198
Andromorphous female, partial 140
Ant guests 184
Batrisus ione 196
California, C. of 199
Casey's revision of Coccinellidæ 205
Chrysomela scalaris 83
Cicindela spp. . . 83, 128, 167, 198
Coccinellidæ, Casey's revision of 205
Cychrus andrewsii 140
Cychrus spp. 95, 167
Derobrachus 235
Dicælus spp. 231
Dichelonycha albifrons 266
*Ecitoxenia brevipes** 185
Epicauta spp. 25
Europs pallipennis 61
Eurymycter fasciata 83
Florida, C. of 168
Habits 31, 61, 95
Hydrobius tessellatus 23
Lagochirus araneiformis . . 25, 95
Lebasiella pallipes 61
Lebia pulchella 266
Longicorns, Eggs of 25
Melanophila notatus 266
Mt. Washington, C. of . . . 6, 319
Neoclytus erythrocephalus . . . 198
New Jersey, C. of 25, 31, 61, 168, 196, 198, 231, 265, 266, 298, 328.
Nyctobates pennsylvanicus . . 141
Odontæus filicornis 141
Omus 95
Pennsylvania, C. of 23, 61, 231, 266
Phanæus carnifex 328
Physonota unipunctata 168
Pimatodes ater 298
Platynus extensicollis 146
Polypleurus perforatus 61
Pterostichus vinctus 140
Saperda concolor 125
cretata 266
*hornii** 33
larvæ 61
Scolytid larval galleries 31
*Termitogaster texana** 187
Thymalus fulgidus 265
Trechus chalybeus 241
Utah, C. of 114, 147
Wyoming, C. of 114, 147

DIPTERA.

Acroceridæ 178
Apocephalus pergandei 25
Ants' nest, D. in 25
Callicera johnsoni 328
*Ceratopogon varicolor** 84
Chirosia capito 328
*Corethra brakeleyi** 85
Criorhina verbosa 230
Culex canadensis, Early stages of 267
Culex larva, Breathing tubes of 60
Dasyllis affinis 61, 77
posticatus 265
Empis humilis 332
Lepidophora ægeriiformis . . . 332
Limnophora arcuata 328
Microdon larvæ 232
Mosquitoes 60, 198, 267, 299
Mt. Washington, D. of . . . 7, 319
Mydæa pruinosa 328
New Jersey, D. of, 61, 168, 265, 299, 328, 332.
*Opsebius agelenæ** 180
Phorocera lucaniæ 332
Pseudolephritis nom. nov. . . . 144

Rhagoletis suavis 242
Siphosturmia rostrata 332
Sphyracephala brevicornis 26, 160, 233.
Stegomyia fasciata 198, 231
Stictocephala 144
Tachytrechus binotatus 168
*Tanypus dyari** 85
*Tephronota canadensis** 144
ruficeps 143
Xylophagus persequus 197

HEMIPTERA.

Anasa armigera 26
Ant-nest-coccids 41
Aradus niger 23
Aspidiotus hederæ 43, 89
sacchari 24
Asterodiaspis quercicola . . . 27
Chrysomphalus agavis 15
Cicada septendecim, 230, 232, 265, 327.
Coccidæ 41, 152
Progress in description of 255
Diaspis rosæ 167
Greenhouse coccidæ 152
Mt. Washington, H. of . . . 8, 321
Mytilaspis beckii 17
New York, H. of 23
*Phenacoccus simplex** 42
*Pseudolecanium distichum** . . 134
*Ripersia cockerellæ** 42
*fimbriatula** 41
Wood's Holl, Mass., Heteroptera of 12

HYMENOPTERA.

Agenioxenus 275, 318
Anagrus 331
Andrena fulvipennis 237
integra 328
salicis 238
Ant-nest-Diptera 25
coccids 41
Ants, strength of 89
*Anthidium pondreum** 169
*Bombus titusi** 50
California, Xenoglossa in . . . 103
Camponotus ferrugineus 25
Ceratosoma fasciata. 328
Ceropales 275, 318
*quaintancei** 275
Chalybion cœruleum 90
Cidaphurus cressonii 328
Cimbex 125
*Colletes crucis** 304
Crabro trifasciatus 168
*Cratichneumon artemis** . . . 87
*Cratichneumon pedalis pallidipennis** 87
*Cratichneumon pedalis varitarsis** 87
*Dianthidium balli** 172
Dunning collection 86, 128
*Dyseidopus vancouverensis** . . 307
*Epeolus autumnalis** 81
Habits 90
Labena grallator 328
Lithurgopsis n. sp. 138, 182
spp. 139
Mt. Washington, H. of . . . 5, 320
Mutilla montivaga 95
*Nomada simplex** 80
New Jersey, H. of, 71, 95, 198, 266, 328, 332.
Odynerus sulphureus 90
*Osmia cordata** 79
*major** 79
spp. 79
Phyllocus integer 125
*Plenoculus atlanticus** 74
*foxii** 73
Polistes carnifex 273
major 273
Polybia nigripennis 273
Pompilus ferrugineus 90
*Protanthidium cockerelli** . . . 170
Spilochalcis delira 95
*Triepeolus minimus** 81
Vespa carolina 198, 266
*Xenoglossa angelica** 103
Xylocopa varipuncta. 318

LEPIDOPTERA.

Aberrations 29, 103
Actias luna 230
Aellopos fadus titan 326
Amarynthis muscolor 235
Anartia jatrophæ 27
*Anatole modesta** 176
Anosia berenice 125
*Apodemia ochracea** 176
Argynnis 27
diana 30
*Bæotis bifasciata**. 177
Basilarchia arthechippus . . . 331
Bembecia marginata 100
Blackberry crown borer in Arizona 100
Bolivia, L. from . . . 104, 293, 317
Bombycidæ of New Hampshire 284
California, L. of 15, 200, 334
Callimorpha spp. 31
Catocala spp. 30
Cheap tropical L. 238, 316
Chionobas katahdin 28, 328
*Cobalopsis duspecca** 105
Cocoons, loose and tight . . . 232
Codling moth, Broods of . . . 193
Colias philodice 103, 168
*Cosmosatyrus nilesi** 105
Deltoids new to Mass. 208
Dichelia sulfureus 168
Dynamine albidula 235
Ephestia kuhniella 159
Eriocranid larva, A 129
Euchloe sara reakirti, egg. . . 158
Euhagenia nebraskæ 303
Eumæus debora 35
Eurybia hari . . . . . Pl. xii
Florida, L. of 75
Graptolitha caryana 233
Halisidota spp. 29
Haploa lecontei 197
Heliconius spadacarius . . . Pl. vii
Hemaris diffinis 82
tenuis 82
Hemerophila unitaria 230
Hermaphrodite L. 28, 78
Hesperidæ new to U. S. . . . 183
Hymenitis andreas 235
Illinois, L. of 234
Lantern trapping 207
Leucania spp. 127
Limenitis floridensis 125
*Lycæna chlorina** 15
*neurona** 15
pseudargiolus 78
ruberrothei 104
sonorensis 32
Massachusetts, L. of . 208, 330, 331
*Megathymus ursus** 97
Melanic L 103, 168
*Melitæa damætas** 304
gabbi, chrysalis 158
nubigena 24
phæton 104
*streckeri** 104
Mt. Washington, L. of . . . 5, 319
Myscelia skinneri 321
*Necyria gerhardi** 177
New Hampshire, L. of, 284, 326, 330, 331.
New Jersey, L. of 265
New Mexico, L. of 24
Ocneria dispar 28
Orneodes hexadactyla . . . 89, 156
*Palinda merricki** 172
Pamphila hianna 265
*vierecki** 213
Papilis asterias 104
cochabamba . . . . . Pl. v
cresphontes 27, 331
philenor 29, 326
*polyxenes curvifascia** 183
*tahmourath** 291
Parnassius charltonius 259
Pennsylvania, L. of 230
Philampelus vitis 331
Pieris protodice 331
Pseudohazis eglanterina 334
*Psychophora fasciata** 141, 191, 192
Samia cynthia, cocoon 132

Schizura concinna 293
Sphinx sequoiæ 334
Spring L. 234
*Syrichthus nigella** 107
Thecla infrequens 235
Thyreus abbotti 196
Vanessa milbertii 330

NEUROPTERA.

Agrion resolutum 145
Arizona, N. of 25
*Brachynemurus cockerelli** . . 86
Celithemis fasciata 298
Dragonflies in Arizona 25
Erythromma conditum 265
*Gomphus hybridus** 47
nævius 25
Hetærina titia 192
Lestes uncatus 88
Magdalen Is., Odonata of . . . 144
Maine, Odonata 246
Mt. Washington, N. of . . . 8, 321
Myrmeleon larvæ 209
New Jersey, N. of 24, 197, 265, 298
New Mexico, Odonata of . . . 26
Pairs of dragonflies, To collect. 59
Pennsylvania, N. of . . 25, 65, 108
*Protoneura peramans** 231
Sympetrum albifrons 24
Termites, Coleoptera associated with 186
Tetragoneura spinosa. 197

ORTHOPTERA.

Acrydium 102
*Aptenopedes clara** 14
*Bacillus palmeri** 274
Blatta 101
Florida, O. of 14, 95
*Leprus cyaneus** 305
spp 305
Mantid, A greedy 60
Mt. Washington, O. of. 8
New Jersey, O. of 24, 309
Nomenclatural notes 101
Nyctibora sericea 95
Pennsylvania, O. of, 95, 309, 332, 333.
Phyllodromia cubensis 95
Phyllonotus nom. n. 188
*Phrixocnemis hastiferus** . . . 241
Schistocerca alutacea 89
rubiginosa . . . 89
*Stenopalmatus terrenus** 240

* New species.

Tenodera sinensis . . 24, 26, 62, 95
Trimerotropis citrina 333

AUTHORS.

Aldrich, J. M. 156
Ashmead, W. H. 50, 318
Babb, G. F. 242
Baker, C. F. 98
Banks, N. 86, 308
Barrett, O. W. 238
Blaisdell, F. E., 32, 173, 202, 265, 334
Bowditch, F. C. 205
Bradley, J. C. 23, 161, 307
Britton, W. E. 327
Brues, C. T. 184
Calvert, P. P. 23, 192, 322, and Index.
Caudell, A. N. 60, 94, 274
Cockerell, T. D. A. 15, 17, 24, 89, 100, 103, 182, 303, 304, 305, 318, 326.
Comstock, H. 75
Comstock, J. A. 75, 125, 167, 234, 258, 298, 329.
Coquillett, D. W. 84
Denton, W. D. 316
Dod, F. H. W. 50
Doran, E. W. 281
Dyar, H. G. 192
Ehrmann, G. A. 140, 291
Ellsworth, A. 103
Field, W. L.W. 28, 62, 126, 197, 233, 331.
Foster, F. H. 293, 326
Fox, W. J. 11, 40, 128, 137, 168, 182, 199, 298, 328.
Gillette, C. P. 193

Goodhue, C. F. 284
Graf, J. L. 113
Hall, A. P. 197, 233, 276
Hancock, J. L. 188
Hoag, M. C. 59, 89
Holland, W. J. 64, 172
Hood, L. F. 83
Hornig, H. 132
Houghton, C. O. . . . 89, 160, 247
Johnson, C. W. 77, 143
Johnson, W. G. 159
Joutel, L. H. 33
Kearfoot, W. D. 129
King, G. B. 41, 152, 255
Knaus, W. 114, 147
Kuwana, S. I. 134
Kwiat, A. 234
Lidgett, J. 43
Mally, C. W. 223
McClendon, J. F. 209
McGillivray, A. 247
Melander, A. L. 178
Mengel, L. W. 176
Merrick, F. A. 117, 330
Merrick, H. D. 16
Minot, G. R. 158
Montgomery, T. H., Jr. 12
Murillo, L. 35
Newcomb, H. H. 264, 328
Oestlund, O. W. 253
Osborn, H. 91
Poling, O. C. 97
Rehn, J. A. G. 14, 18, 55, 89, 91, 101, 118, 216, 240, 260, 294, 309, 323.
Reinick, W. R. . . . 26, 61, 96, 232
Robertson, C. 79
Say, T. 9, 38
Schaeffer, C. 235
Skinner, H. 15, 17, 22, 27, 54, 58, 62, 88, 96, 117, 128, 141, 157, 168, 183, 188, 192, 213, 214, 231, 266, 304, 321, 326, 332, 333.
Slosson, Mrs. A. T. 4
Smith, E. J. 207, 244
Smith, J. B. 122, 160, 193, 223, 243, 267, 299.
Smyth, E. A., Jr. 82
Titus, E. S. G. 169
Van Duzee, E. P. 23
Viereck, H. L. 18, 55, 71, 91, 118, 216, 237, 260, 273, 275, 294, 323.
Wadsworth, Miss M. 246
Webster, F. M. 277
Weeks, A. C. 31
Weeks, A. G., Jr. 104, 317
Weith, R. J. 90
Williamson, E. B. 47, 60, 65, 108, 121, 144
Winn, A. F. 78